Form 6-3. Operational checklist: Pump: Time-dosed system (PTD)

Service provided on: Date:_____ Time:_____ Reference #:_____
Service provided by: Company: _____ Employee:_____
Date of last service: _____ By: ❑ You ❑ Other:_____
Date of last inspection: _____

Notes

1. Controls — Timer manufacturer:_____
   a. Is enclosure watertight? Yes____No____
   b. Alarm test switch working properly? Yes____No____
   c. At time of inspection, timer was set at: "On"____ Mode setting____
      "Off"____ Mode setting____
   d. At time of inspection, control switch (HAND-OFF-AUTO) was set at:
      "Hand/Manual"_____
      "Off" _____
      "Auto" _____
   e. If timer was changed from above, new setting is: "On"____ Mode setting____
      "Off"____ Mode setting____
   f. Electrical meter readings:

		Reading (this)	Reading (last)	Difference	N.A.
i)	ETM			min	
ii)	Cycles/events			Events (NC)	

   Calculate cycles/day: _____ [NC] / [Days] = _____ [CPD]
   g. Telemetry operational? N.A._____Yes ____ No _____
      Type: _____

1. ❑ Acceptable ❑ Unacceptable

2. Pump
   a. Pump operating properly? Yes____No____
   b. Type of pump: ❑ Multi-stage ❑ Single-stage
   c. Amps measured: _____amps
   d. Voltage measured: _____volts
   e. Pump turns on/turns off? Yes____No____

2. ❑ Acceptable ❑ Unacceptable

3. Water level sensors
   a. Type of water level sensor: ❑ Floats ❑ Pressure transducers ❑ Ultrasonic ❑ Other:_____
   b. Pump sensors functioning properly? Yes____No____
   c. Alarm sensor operating audible and visible alarms? Yes____No____

3. ❑ Acceptable ❑ Unacceptable

4. Sensor settings:

Sensor Number*	Function	Operational	Set At:		Secured
			Inches**	Datum	
1		Yes___ No___			Yes___ No___
2		Yes___ No___			Yes___ No___
3		Yes___ No___			Yes___ No___
4		Yes___ No___			Yes___ No___
5		Yes___ No___			Yes___ No___

**(Designate starting from bottom of tank)*
*** Measurements are taken from a fixed point ("Datum") near the surface or bottom of float tree in inches)*

5. Pump delivery rate (PDR) (measured)
   a. Pump Off_____ - Pump On _____ = _____in
   b. GPI: _____ (*From* Form 6.1 - Item 3 e)
   c. Verified pump run time: _____min

(_____In x _____GPI) ÷ Pump run time (min) =_____(GPM)

Form 6-3. Operational checklist: Pump: Time-dosed system (PTD)

Reference #:_____

6. Dose volume (DV) (from timer setting)
   a. Pump delivery rate: _____ GPM (from Item 5)
   b. Verified pump run time: _____min
   _____ GPM x _____ min/cycle =_____(DV[Gal/ cycle])
7. Total gallons (from elapsed time meter)
   a. [_____(PTR) - _____(LTR)] x _____(GPM) = _____Total Gal
   OR Total gallons (from event/cycle counter)
   [_____(PCR) - _____ (LCR)] x _____(DV) =_____Total Gal
8. Gallons per day (GPD)
   _____Total gal ÷ _____No of days = _____Gal./Day (GPD)

CPD: cycles per day
DV: dose volume
ETM: elapsed time meter
GPD: gallons per day
GPI: gallons per inch
GPM: gallons per minute
HAND-OFF-AUTO: Hand-Off-Auto Switch
LCR: last cycle reading
LTR: last time reading
PCR: present cycle reading
PDR: pump delivery rate
PTR: present time reading

Form 7-1. Operational checklist: Media filter (MF).

Service provided on: Date:_____ Time:_____ Reference #:_____
Service provided by: Company: _____ Employee: _____
Date of last service: _____ By: ❑ You ❑ Other:_____
Date of last inspection: _____

1. Type of media filter:

Single-pass:	❑ Sand	❑ Foam	❑ Peat	❑ Other: _____
Recirculating:	❑ Sand/gravel	❑ Foam	❑ Textile	❑ Other: _____
Trickling filter:	❑ Gravel	❑ Plastic	❑ Textile	❑ Other: _____
Upflow filter:	❑ Gravel	❑ Plastic	❑ Textile	❑ Other: _____

   a. Manufacturer: _____ Model #: _____
   b. Distribution method: ❑ Pressure distribution ❑ Gravity distribution

2. Conditions at media filter
   a. Evaluate presence of odor within 10 ft of perimeter of system:
      ❑ None ❑ Mild ❑ Strong ❑ Chemical ❑ Sour
   b. Source of odor, if present: _____
3. Cover
   a. Type of cover: ❑ Free access ❑ Buried ❑ Lid
   b. Filter cover intact? Yes_____No_____
   c. Method of securing cover: _____
   d. Distribution component accessible? Yes_____No_____
   e. Surface water/infiltration into components? Yes_____No_____
4. Venting/Air supply: ❑ Passive ❑ Active ❑ Not present
   a. Supply: ❑ Aspirator ❑ Compressor ❑ Blower ❑ Free air (go to 4.g)
   b. Operation: ❑ Continuous ❑ Timed (On_____min, Off _____ min)
   c. Air supply unit operating properly? Yes_____No_____
   d. Pressure at air supply unit: _____psi
   e. Air flow at air supply unit: _____cfm
   f. Air filter/screen: ❑ Cleaned ❑ Replaced
   g. Venting appears operable? Yes ____No____
5. Media surface
   a. Biomat on surface? Yes_____No_____
   b. Uniform gravity distribution? N.A._____Yes_____No_____
   c. Uniform spray pattern? N.A._____Yes_____No_____
   d. Ponding in/on media? Yes_____No_____
   e. Plugging/clogging of distribution components? Yes_____No_____
   f. Media appears to be settling? Yes_____No_____
   g. Appropriate maintenance performed? Yes_____No_____
   h. Animal activity at surface? Yes_____No_____
6. Effluent quality
   a. Turbidity: _____NTU
   b. Oily film on the surface of effluent? Yes_____No_____
   c. DO at outlet: _____mg/L
   d. pH at outlet: _____
   e. Temperature at outlet: _____
   f. Bypass or overflow noticed? Yes_____No_____
   g. Effluent odor after passing through media filter:
      ❑ None ❑ Mild ❑ Strong
   h. Effluent color after passing through media filter:
      ❑ Clear ❑ Brown ❑ Black

Notes

2. ❑ Acceptable ❑ Unacceptable
3. ❑ Acceptable ❑ Unacceptable
4. ❑ Acceptable ❑ Unacceptable
5. ❑ Acceptable ❑ Unacceptable
6. ❑ Acceptable ❑ Unacceptable

Form 7-1 (continued). **Operational checklist: Media filter (MF)**

Reference #: _____

7. Pressure distribution: N.A_____
   a. Distal head before cleaning
      i) Equal height? Yes____No____
      ii) Height (inches): _____in
   b. Lateral condition
      i) Laterals in need of cleaning? Yes____No____
      ii) Laterals cleaned? Yes____No____
      iii) Method for cleaning laterals: _____
   c. Distal head after cleaning
      i) Equal height? Yes____No____
      ii) Height (inches): _____in
8. Gravity distribution: N.A_____
   a. Device: _____
   b. Uniform distrubtion? Yes____No____
   c. Operating properly? Yes____No____
9. Filter drainage systems
   a. Ponding in media filter sump? Yes____No____
   b. Gravity drainage operational? N.A.____Yes____No____
   c. Solids buildup in sump area? N.A.____Yes____No____
   d. Underdrain vents present? Yes____No____
   e. Underdrain vents appear operable? Yes____No____
10. Additional tasks for recirculating filters
   a. DO in recirculation tank: _____mg/L
   b. Inspected recirculating device? N.A.____Yes____No____
   c. Cleaned recirculating device? N.A.____Yes____No____
   d. Design recirculation ratio: _____:_____
   e. Actual recirculation ratio: _____:_____
   f. Recirculation changed to: _____:_____
   *If dam configuration, recirculation device cannot be inspected or cleaned
11. Additional tasks for trickling filters
   11.1 Clarification chamber
      a. Solids blanket below recirculation pump inlet? Yes____No____*
      *If no, was system pumped out? Yes____No____
      b. If screened inlet, was screen cleaned? Yes____No____
   11.2 Sludge return
      a. Solids blanket slightly above return pump? Yes____No____
      b. Changed solids return rate? Yes____No____
         i) Pump: ❑ Off ❑ On
         ii) Changed from ____ min to ____min
12. Manufacturer's required maintenance performed? Yes____No____
   (If 'Yes', attach Manufacturer Inspection form to this report, if supplied)
13. Lab samples collected for monitoring? Yes____No____
   Types of analysis: _____
   _____
   _____

7. ❑ Acceptable ❑ Unacceptable

8. ❑ Acceptable ❑ Unacceptable

9. ❑ Acceptable ❑ Unacceptable

10. ❑ Acceptable ❑ Unacceptable

11.1. ❑ Acceptable ❑ Unacceptable

11.2. ❑ Acceptable ❑ Unacceptable

Form 7-3. Operational checklist: Constructed wetland (CW).

Service provided on: Date:_____ Time:_____ Reference #:_____
Service provided by: Company: _____ Employee: _____
Date of last service: _____ By: ❑ You ❑ Other:_____
Date of last inspection: _____

1. Constructed wetland: Cell # : _____/ _____
   a. Media: ❑ None ❑ Gravel, average diameter: _____in
      ❑ Other:_____
   b. Flow regime: ❑ Surface ❑ Subsurface ❑ Combination
   c. Distribution: ❑ Pressure ❑ Gravity
2. Conditions at the constructed wetland
   a. Evaluate presence of odor within 10 ft of perimeter of system:
      ❑ None ❑ Mild ❑ Strong ❑ Chemical ❑ Sour
   b. Source of odor, if present: _____
   c. Type of border material: _____
   d. Border material in good repair? Yes____No____
   e. Evidence of water/soil entering wetland? Yes____No____
   f. Fence present and operable? N.A.____Yes____No____
   g. Animal activity at wetland surface? Yes____No____
3. Water level management
   a. Header distribution plugged? Yes____No____
   b. Water level control option available? Yes____No____
   c. Water level adjustment needed? Yes____No____
4. Vegetation
   a. Is species appropriate? Yes____No____
   b. Is vegetation alive? Yes____No____
   c. Replanting needed? Yes____No____
   d. Vegetation removal required? Yes____No____
5. Effluent quality
   a. Turbidity: _____NTU
   b. Oily film on the surface of effluent? Yes____No____
   c. DO in outlet: _____mg/l
   d. pH in outlet: _____
   e. Temperature in outlet: _____
   f. Bypass or overflow noticed? Yes____No____
   g. Effluent odor after passing through wetland:
      ❑ None ❑ Mild ❑ Strong
   h. Effluent color after passing through wetland:
      ❑ Clear ❑ Brown ❑ Black
6. Additional tasks for subsurface flow wetlands
   a. Media surface level? Yes____No____
   b. Water level below media surface: _____in
7. Additional tasks for recirculating wetlands
   a. DO in recirculation tank: _____mg/l
   b. Inspected recirculating device? N.A.____Yes____No____
   c. Cleaned recirculating device? N.A.____Yes____No____
   d. Design recirculation ratio: _____:_____
   e. Actual recirculation ratio: _____:_____
   f. Recirculation changed to: _____:_____

   *If dam configuration, recirculation device cannot be inspected or cleaned
8. Inspection ports
   a. Inspection ports present? Yes____No____
   b. Inspection ports intact? Yes____No____
9. Lab samples collected for monitoring? Yes____No____
   Types of analysis:_____

Notes

2. ❑ Acceptable ❑ Unacceptable
3. ❑ Acceptable ❑ Unacceptable
4. ❑ Acceptable ❑ Unacceptable
5. ❑ Acceptable ❑ Unacceptable
6. ❑ Acceptable ❑ Unacceptable
7. ❑ Acceptable ❑ Unacceptable
8. ❑ Acceptable ❑ Unacceptable

Form 8-1. Operational checklist: Gravity distribution (including pump-to-gravity) (GD).

Service provided on: Date:_____ Time:_____ Reference #:_____
Service provided by: Company: _____ Employee:_____
Date of last service: _____ By: ❑ You ❑ Other:_____
Date of last inspection: _____

1. Type
   a. Method for dosing to field:
      ❑ Gravity-to-gravity ❑ Pump-to-gravity ❑ Siphon-to-gravity
   b. Method for distribution in the field:
      ❑ Above grade ❑ Bed ❑ Continuous serial trench
      ❑ Parallel trench ❑ Serial trench

2. Conditions at the drainfield site
   a. Evaluate presence of odor within 10 ft of perimeter of system:
      ❑ None ❑ Mild ❑ Strong ❑ Chemical ❑ Sour
   b. Source of odor, if present: _____
   c. Indications of leaks around/above system? Yes____No____
   d. Vegetation appropriate? Yes____No____
   e. Excessive vegetative growth? Yes____No____
   f. Vegetation adequately maintained? Yes____No____
   g. Preventing accessibility for maintenance? Yes____No____

3. Distribution device
   a. Type: ❑ Distribution box ❑ Drop box ❑ Header
      ❑ Pressure manifold ❑ Other: _____
   b. If pressure manifold, distal head: _____
   c. Accessible? Yes____No____
   d. Intact, providing equal distribution? Yes____No____
   e. Free of solids? Yes____No____
   f. If 'No,' depth of solids below outlet: _____in
   g. Root intrusion? Yes____No____

4. Distribution in field
   a. Soil treatment area information:

Notes

2. ❑ Acceptable
   ❑ Unacceptable

3. ❑ Acceptable
   ❑ Unacceptable

Lateral #	Ponding		Surfacing Effluent		Distance Effluent Traveled (ft)	Lateral ends	Roots	Obstructions	Notes	Status
	Yes - No	Depth (in)	Yes	No						
1			☐	☐						❑ Acceptable ❑ Unacceptable
2			☐	☐						❑ Acceptable ❑ Unacceptable
3			☐	☐						❑ Acceptable ❑ Unacceptable
4			☐	☐						❑ Acceptable ❑ Unacceptable
5			☐	☐						❑ Acceptable ❑ Unacceptable
6			☐	☐						❑ Acceptable ❑ Unacceptable

Form 8-1(continued). **Operational checklist: Gravity distribution (including pump-to-gravity) (GD).**

Reference #:_____

Other Areas where Effluent is surfacing?	☐	☐	Location:					❑ Acceptable ❑ Unacceptable

5. Inspection ports
   a. Inspection ports present? Yes_____No_____
   b. Inspection ports intact? Yes_____No_____
6. Switching valves
   a. Switching valve present? Yes_____No_____
   b. Type of valve:_____
   c. Operating properly? Yes_____No_____
   d. Action taken if not:_____
   e. Laterals in operation: _____

5. ❑ Acceptable
   ❑ Unacceptable

6. ❑ Acceptable
   ❑ Unacceptable

Form 5-2. Operational checklist: Septic, trash, and processing tanks (STPT).

Service provided on: Date:_____ Time:_____ Reference #:_____
Service provided by: Company: _____ Employee:_____
Date of last service: _____ By: ❑ You ❑ Other:_____
Date of last inspection: _____

1. Type:
   - ❑ Septic tank ❑ Trash tank
   - ❑ Processing tank ❑ Pump vault present

2. Conditions at the tank
   a. Evaluate presence of odor within 10 ft of perimeter of system:
      ❑ None ❑ Mild ❑ Strong ❑ Chemical ❑ Sour
   b. Source of odor, if present: _____

3. Tank description
   a. Material: ❑ Concrete ❑ Fiberglass ❑ Plastic
   b. Capacity: _____gal
   c. Compartmented? Yes ____No_____
   d. Capacities for compartmented system: 1)_____ gal 2) _____ gal

4. Tank access
   a. Access location: ❑ Inlet ❑ Outlet ❑ Center
   b. Located at grade? Yes_____No_____
   c. If 'No', how deep is lid buried? _____
   d. Risers on tank? Yes_____No_____
   e. Evidence of infiltration in risers? Yes_____No_____
   f. Lids securely fastened? Yes_____No_____
   g. Lid in operable condition? Yes_____No_____

5. Alarm(s)
   a. Alarm(s) present? Yes_____No_____
   b. Audio alarm operational? N.A.____Yes_____No_____
   c. Visual alarm operational? N.A.____Yes_____No_____
   d. Remote telemetry operational? N.A.____Yes_____No_____
   e. Electronic monitoring operational? N.A.____Yes_____No_____

6. Current tank operating conditions
   a. Liquid level relative to outlet: _____in
      ❑ At ❑ Above ❑ Below
   b. Maximum liquid level of tank (invert of outlet pipe):_____in
   c. Height at which alarm is activated as measured from invert of outlet: _____in
   d. Evidence liquid level has been higher? Yes_____No_____
   e. Evidence liquid level dropped without pumping? Yes_____No_____
   f. Evidence of continuous inflow? Yes_____No_____
   g. Date of last pumpout:_____
   h. Presence of flocculant in clear zone? Yes____No____
   i. Evaluation of layers in tank:

Compartment Number	Scum (in)		Clear Zone (in)		Sludge (in)		Odor	Other
	Depth	Color*	Depth	Color	Depth	Color		
1								
2								

*Color Choices: ❑ Clear ❑ Flocced ❑ Milky ❑ Muddy ❑ Grainy
❑ Black ❑ Brown ❑ Mustard ❑ Gray ❑ White

7. Septic tank pumping recommended? Yes_____No_____

NOTES

2. ❑ Acceptable ❑ Unacceptable
4. ❑ Acceptable ❑ Unacceptable
5. ❑ Acceptable ❑ Unacceptable
6. ❑ Acceptable ❑ Unacceptable

Form 5-2 (continued). **Operational checklist: Septic, trash, and processing tanks (STPT)**

Reference #:_____

8. Baffles currently structurally sound? Yes____No____
   a. Inlet baffle in place? Yes____No____
   b. Outlet baffle in place? Yes____No____
   c. Compartment baffle in place? N.A. _____ Yes____No____
   d. Effluent screen? N.A. _____ Yes____No____
      Manufacturer:_____Model:_____
   e. Is screen accessible from ground surface? N.A. __ Yes____No____
   f. If screened, percent plugged: _____%
   g. Was screen cleaned? Yes____No____
9. Tank structural condition (evaluate if tank pumped): N.A._____
   a. Appears to be watertight (no visual leaks)? Yes____No____
   b. Rebar exposed? Yes____No____
   c. Corrosion present? Yes____No____
   d. Spauling present? Yes____No____
   e. Cracks present? Yes____No____
   f. Root intrusion? Yes____No____
10. Contractor responsible for pumping: _____
    a. Gal removed:_____ Date:_____
11. Lab samples collected for monitoring? Yes____No____
    Types of analysis:_____
    _____
    _____

8. ❑ Acceptable
   ❑ Unacceptable

9. ❑ Acceptable
   ❑ Unacceptable

Form 6-1. Operational checklist: Pump tank (PT).

Service provided on: Date:_____ Time:_____ Reference #:_____
Service provided by: Company: _____ Employee:_____
Date of last service: _____ By: ❑ You ❑ Other:_____
Date of last inspection: _____

1. Type:
   - ❑ Pump tank ❑ Siphon tank ❑ Surge/Flow equalization tank
   - ❑ Processing tank ❑ Recirculation tank ❑ Internal pump basin sump
   - a. Pump intake depth: _____

2. Conditions at the pump tank
   - a. Evaluate presence of odor within 10 feet of perimeter of system: ❑ None ❑ Mild ❑ Strong ❑ Chemical ❑ Sour
   - b. Source of odor, if present: _____

3. Tank description
   - a. Material: ❑ Concrete ❑ Fiberglass ❑ Plastic
   - b. Capacity: _____gal
   - c. Surface area: _____sq ft
   - d. Operational depth: _____in
   - e. Gallons per inch (GPI): _____gal/in

4. Tank access
   - a. Access location: ❑ Inlet ❑ Outlet ❑ Center
   - b. Located at grade? Yes____No____
   - c. If 'No', how deep is lid buried? _____
   - d. Risers on tank? Yes____No____
   - e. Evidence of infiltration in risers? Yes____No____
   - f. Lids securely fastened? Yes____No____
   - g. Lid in operable condition? Yes____No____

5. Current tank operating conditions
   - a. Liquid level relative to inlet: _____in ❑ At ❑ Above ❑ Below
   - b. Maximum liquid level of tank (invert of inlet pipe):_____in.
   - c. Height at which alarm is activated as measured from top of maximum liquid level: _____in
   - d. Evidence liquid level has been higher? Yes____No____
   - e. Evidence liquid level dropped without pumping? Yes____No____
   - f. Evidence of continuous inflow? Yes____No____
   - g. Date of last pumpout: _____

6. Pump/Siphon
   - a. Pump/Siphon under access? Yes____No____
   - b. Pull chain or rope present? N.A.___ Yes____No____

7. Discharge assembly: N.A. _____
   - a. Anti siphon/air release device? Yes____No____
   - b. Backflow prevention (check valve) present? Yes____No____
   - c. Air release located below check valve? Yes____No____
   - d. Drain back device present? Yes____No____
   - e. Quick disconnect present? Yes____No____
   - f. Isolation valve present? Yes____No____
   - g. Inline filters present? Yes____No____

8. Electrical components sealed and watertight? N.A.____Yes____No____

Notes

2. ❑ Acceptable ❑ Unacceptable
3. ❑ Acceptable ❑ Unacceptable
4. ❑ Acceptable ❑ Unacceptable
5. ❑ Acceptable ❑ Unacceptable
6. ❑ Acceptable ❑ Unacceptable
7. ❑ Acceptable ❑ Unacceptable
8. ❑ Acceptable ❑ Unacceptable

Form 6-1 (continued). **Operational checklist: Pump tank (PT)**

Reference #:_____

9. Tank structural condition (evaluate if tank pumped): N.A._____
   a. Appears to be watertight (no visual leaks)? Yes____No____
   b. Rebar exposed? Yes____No____
   c. Corrosion present? Yes____No____
   d. Spauling present? Yes____No____
   e. Cracks present? Yes____No____
   f. Root intrusion? Yes____No____

9. ❑ Acceptable
   ❑ Unacceptable

10. Solids accumulation:

Scum (in)	Sludge (in)	Odor	Color	Other

11. Tank pumping recommended? Yes____No____
12. Contractor responsible for pumping: _____
    a. Gal removed:_____Date:_____
13. Screen(s)
    a. Type of screen: ❑ Vault with basket ❑ Vault with filter ❑ In-line screen
    b. Was screen cleaned? Yes____No____
14. Lab samples collected for monitoring? Yes____No____
    Types of analysis:_____
    _____
    _____